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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/824,837

04/02/2001

Amit Phadnis

CSCO-004/95507

1175

26392

7590

10/04/2004

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EXAMINER

VINCENT, DAVID ROBERT

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/824,837

Applicant(s)

PHADNIS ET AL.

Examiner

David R Vincent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Troxel (US 6,185,210) in view of Kohzuki (US 2003/0007455 A1).

Providing different QoS to different Layer-3 datagrams (e.g., IP packets being sent over ATM VCs and using bilevel routers, cols. 1-2, especially col. 2, lines 1-6), using a backbone (e.g., point to point ATM network over fibers, col. 4, lines 54-59), provisioning a tunnel (col. 10, lines 35-49; tunnel reads on merely encapsulating into a lower layer protocol for transmission, and clearly reads on IP over ATM, point to point ATM network over fibers, col. 4, lines 54-59), examining datagram headers (reading IP headers to determine how to route the packet, where to set up the P-to-P VC and what the priority is, cols. 2-3; col. 6, lines 5-10), forming at least one packet (ATM cells are fixed length packets and more than one is created

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for each encapsulated IP datagram) in the first network device by encapsulating (IP over ATM/IPoA, col. 5, lines 16-26; col. 11), said packet includes a header to provide QoS (ATM fixed length packets/cells, use QoS parameters in e.g., the Q.2931 call setup information element fields and then use the VPI/VCI label to indicate QoS, col. 12; cols. 9-10, especially col. 10, lines 63-67), layer-3 datagrams receive different QoS based on the corresponding datagram headers (using e.g. the TOS field in the IP packet header), using UDP or IP packets (e.g., col. 5) containing a marker, TOS or precedence field (IP uses a TOS field as part of IPv4; col. 17, lines 59-64), copying TOS or precedence bits in said datagram (col. 8, lines 9-14; col. 11, lines 24-32), P-to-P sessions (col. 4, lines 54-59; col. 9, lines 6-17; col. 9), a table (col. 12, lines 55-65 and default QoS (col. 20, lines 66-67), a NAS or gateway (col. 16, lines 23-34; also "gateway" reads on any forwarding device including a switch or router, col. 2), a plurality of VCs (col. 9, lines 6-67; ATM uses a plurality of VC in a VP hence the phrase VCI/VPI; col. 4, lines 54-59; col. 5, lines 31-39), a memory (reads on e.g., output buffer, col. 16, lines 45-67), marker accesses memory (indications that force output data into high or low priority buffers, e.g., Figs. 9-11 and respective disclosure), and using instructions and processors (processors that control

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the bilevel routers, gateways, and the ATM switches, e.g., col. 12, lines 3-65). However, although Troxel discloses observing packet priority levels (col. 2, lines 28-34), conveying IP datagrams to various subsets of bilevel routers (col. 9, lines 27-35), and using RSVP with IP over ATM, and QoS parameters for VCs (col. 13, lines 1-9) Troxel fails to make it clear that layer-3 datagrams receive different QoS based on the corresponding datagram headers (e.g., by using the TOS field).

Kohzuki teaches that IP can be tunneled using ATM (sections 28, 65), that VCs can be in bundles (section 19), and that priority can be set/determined by using the TOS field (e.g., sections 168-199, especially 176, 178, 188-189, 199).

It would have been obvious to combine the references because Troxel discloses that the TOS byte could be used for QoS (Troxel: col. 20, lines 66-67). Doing so would allow for more than two levels of priority to be used (Troxel: Figs. 9-11).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 571 272 3080. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571 272 3078. The fax phone number for the

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organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David R Vincent
Primary Examiner
Art Unit 2661

September 27, 2004